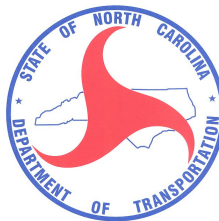


ANNUAL REPORT FOR 2015



Holly and Raft Swamp Mitigation Site
Robeson County
TIP No. B-3693
COE Action ID: SAW-2010-00144
DWR #: 091354



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SUMMARY

The Holly and Raft Swamp Mitigation Site is located in Robeson County. The site was planted in December 2012 and was designed as mitigation for wetland impacts associated with bridge project B-3693.

NCDOT will restore 0.65 acre of riverine wetlands within the Right-of-Way as well as 0.35 acre of riverine wetlands outside of the Right-of-Way. The 0.65 acre wetland restoration area within NCDOT Right-of-Way will mitigate for 1.29 acres of temporary fill in wetlands due to an onsite detour. The 0.21 acre of excavation in wetlands, reported as Site 4 on the Wetland Permit Impact Summary, is part of the restoration area construction and does not require mitigation (see revised impact summary sheet). The remainder of the temporary construction and temporary utility easement will also be replanted. NCDOT shall monitor vegetation success by visual observation and photo documentation and will submit an annual report. NCDOT shall monitor the site for a minimum of three years or until the site is deemed successful.

After the third year of monitoring by visual observation, the Holly and Raft Swamp Mitigation Site shows that the planted species are surviving and the restoration area is re-attaining wetland jurisdictional status.

NCDOT proposes to discontinue vegetation monitoring at the Holly and Raft Swamp Mitigation Site.

1.0 INTRODUCTION

1.1 Project Description

The Holly and Raft Swamp Mitigation Site is located in Robeson County on Pine Log Road, SR 1527, approximately 7 miles northwest of Lumberton, NC between NC Hwy 72W and NC Hwy 211W. The restoration activities involved the removal of the temporary detour and existing adjacent roadway fill of the Pine Log Road. This area was graded to match the adjacent reference wetland elevation.

1.2 Purpose

In order for a mitigation site to be considered successful, a site must meet vegetation success criteria. This report details the vegetation monitoring in 2015 at the Holly and Raft Swamp Mitigation Site. Hydrologic monitoring was not required for the site.

1.3 Project History

December 2012	Wetland Reforestation Completed
August 2013	Vegetation Monitoring (Year 1)
June 2014	Vegetation Monitoring (Year 2)
May 2015	Vegetation Monitoring (Year 3)

1.4 Debit Ledger

The entire Holly and Raft Swamp mitigation site was used for the B-3693 project to compensate for unavoidable wetland impacts.



Figure 1. Vicinity Map

2.0 VEGETATION: HOLLY AND RAFT SWAMP MITIGATION SITE (YEAR 3 MONITORING)

2.1 Success Criteria

Success Criteria states that NCDOT shall monitor the restoration site by visual observation and photo points for survival and aerial cover of vegetation. NCDOT shall monitor the site for a minimum of three years or until the site is deemed successful. Monitoring will be initiated upon completion of the site planting.

2.2 Description of Species

The following wetland species were planted in the Wetland Restoration Area:

Nyssa sylvatica var. *biflora*, Swamp Tupelo

Taxodium distichum, Baldcypress

Chamaecyparis thyoides, Atlantic White Cedar

Quercus nigra, Water Oak

2.3 Results of Vegetation Monitoring

The restoration area is re-attaining wetland jurisdictional status and the planted species are surviving. Planted species noted surviving included swamp tupelo, baldcypress, atlantic white cedar, and water oak. Other species noted within the planted area included wax myrtle, pine, willow oak, sweetgum, lespedeza, black willow, baccharis, *Juncus* sp., woolgrass, *Scirpus* sp., smartweed, red maple and various grasses.

Wetland mitigation signs have been moved to the toe of the fill slope to prevent encroachments into the site. DOT maintenance has been contacted to remove the silt fence noted onsite.

2.4 Conclusions

By visual observation, the Holly and Raft Swamp Mitigation Site shows that the planted species are surviving and the restoration area is re-attaining wetland jurisdictional status.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to discontinue vegetation monitoring at the Holly and Raft Swamp Mitigation Site.

APPENDIX A

SITE PHOTOS & SITE MAP

Holly and Raft Swamp



Photo 1



Photo 2



Photo 3

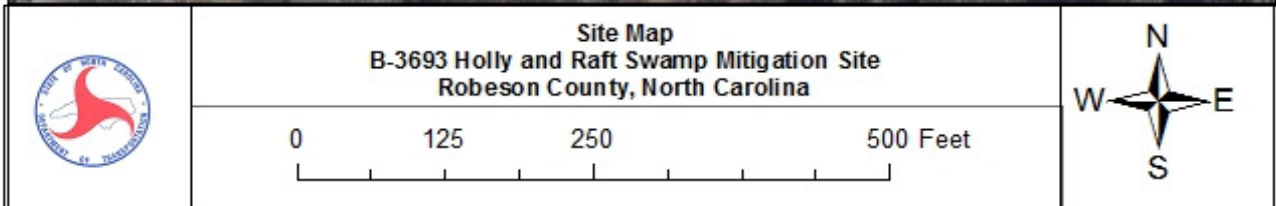


Photo 4



Atlantic White Cedar noted throughout the site
May 2015

Note: The entire boundary of the site was planted.



Appendix A. Site Map

APPENDIX B

WETLAND REFORESTATION FIGURES

